

What is claimed is:

1. In a yarn making process having a low tension relax zone with at least one pair of relax rolls, comprising: providing a relax zone, where yarn is relaxed; providing a tension gate in said relax zone through which the yarn passes, and providing an air shield adjacent the relax rolls to reduce air buffeting the yarn on the relax rolls.
2. In the yarn making process of claim 1, said tension gate comprising one or more air drag devices, one or more liquid drag devices, one or more solid surface contact devices, or a combination of any of these.
3. In the yarn making process of claim 2, wherein said air drag devices comprise an intermingler or a countercurrent flow of air device.
4. In the yarn making process of claim 2, wherein said liquid drag devices comprise a finished applicator or a pool of liquid in the thread line path.
5. In the yarn making process of claim 2, wherein said solid surface contact devices comprise one or more rolls.
6. In the yarn making process of claim 5, said one or more rolls comprises a turbine driven roll or a free-wheeling roll, or a combination thereof.
7. In the yarn making process of claim 1, wherein said yarn is polyester.
8. In the yarn making process of claim 1, said process comprising: spin drawing, draw-twisting, draw-winding, or draw-bulking process.
9. In the yarn making process of claim 1, wherein said air shield comprises a pair of plates.
10. In the yarn making process of claim 9, wherein said plates are perforated.

11. In the yarn making process of claim 9, wherein said plates are positioned between the relax rolls.
12. In the yarn making process of claim 1, wherein said tension gate creating a tension differential on said yarn of at least five milligrams per denier.
13. Apparatus for use in a relax zone in a yarn making process, comprising: a pair of spaced apart first rolls, a tension gate positioned after said first rolls in the yarn threadline, a pair of spaced apart relax rolls positioned after said tension gate in the yarn threadline, and an air shield positioned between said relax rolls.
14. The apparatus of claim 13, wherein said tension gate comprises one or more air drag devices, one or more liquid drag devices, one or more solid surface contact drag devices, or a combination of these.
15. The apparatus of claim 14, wherein said air drag devices comprise an intermingler or a countercurrent airflow device.
16. The apparatus of claim 14, wherein said liquid drag devices comprise a finish applicator or a pool of liquid in the thread line path.
17. The apparatus of claim 14, wherein said solid surface contact devices comprise one or more rolls.
18. The apparatus of claim 13, wherein said one or more rolls comprises a turbine driven roll or a free-wheeling roll, or a combination thereof.
19. The apparatus of claim 13, wherein said air shield comprises a pair of plates.
20. The apparatus of claim 19, wherein said plates are perforated.

21. The apparatus of claim 19, wherein said plates are positioned between said pair of relax rolls.
22. The apparatus of claim 19, wherein said plates are positioned about 1 cm. from said relax rolls.
23. The apparatus of claim 19, wherein said plates are spaced apart, positioned between said relax rolls and are within each tangent line connecting the outer surface of each relax roll.
24. In a yarn making process having a low tension relax zone, comprising: providing a pair of spaced apart first rolls; providing a tension gate positioned after said first rolls in the yarn threadline; providing a pair of spaced apart relax rolls positioned after said tension gate in the yarn threadline; and providing an air shield positioned adjacent said relax rolls.
25. In a yarn making process of claim 24, wherein said air shield comprises a pair of plates.
26. In a yarn making process of claim 25, wherein said plates are perforated.
27. In a yarn making process of claim 24, wherein said plates are positioned between said pair of relax rolls.
28. In a yarn making process of claim 27, wherein said plates are positioned about 1 cm. from said relax rolls.
29. In a yarn making process of claim 25, wherein said plates are spaced apart, positioned between said relax rolls and are within each tangent line connecting the outer surface of each relax roll.